

AMENDMENTS TO THE SPECIFICATION

1) Please replace the paragraph from page 7, line 24 to page 8 line 3 with the following paragraph (marked up to show changes).

Of particular relevance to the present invention, at the boundaries between image segments there is often a certain level of bleeding or blurring. Bleeding can occur due to various reasons including, but not limited to, the segment being in motion when the image was captured and focus-related effects. Therefore, color from one or more adjacent image segments may cross segment boundaries and be introduced into other adjacent segments. Bleeding between segments is typically desirable because otherwise the boundaries between the segments would be rather abrupt, and abrupt boundaries usually make for an artificial and less realistic looking image. This turns out to be fundamental to anti-aliased representation of a high resolution signal on a low resolution lattice. A reason behind this ~~for digital cameras~~ is that CCDs (charge coupled devices) in effect do a tiny averaging around their locations which leads to inherent blurring.

2) Please replace the paragraph on page 15, lines 12-16 with the following paragraph (marked up to show changes).

A seventh step 67 determines if there are more pixels to process. If there are more pixels near the boundary in need of processing, then the process loops back to the second step 62 for selection of another pixel to have its blur coefficient α calculated. When there are no more ~~[[the]]~~ pixels near the boundary in need of processing, then the process moves on to the eighth step 68.

3) Please replace the paragraph on page 17, lines 1-8 with the following paragraph (marked up to show changes).

where \bullet represents a vector dot product. Physically, the blur coefficient α is the ratio of ~~[[thelength]]~~ the length of the blur vector $\Delta(\alpha)$ to the length of the “total” blur vector ($C2 - C1$). Ideally, the blur coefficient α should range from zero (0) to one (1). In practice, due to imperfect computations of $C1$, $C2$, and $C3$, α could be less than zero or greater than one. If α is negative, then α may be clipped to zero so no de-blurring is done. Similarly, α may be clipped to one if it exceeds one. In other words, zero is the minimum value for α , and one is the maximum value for α . Alternatively, α may not be so restricted to be between zero and one. As noted above, α depends on x and so may be denoted $\alpha(x)$.